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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,944	02/01/2001	Robert K. Jenner	1019-US	9154

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EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT PAPER NUMBER

3726

DATE MAILED: 10/09/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/773,944

Applicant(s)

JENNER, ROBERT K.

Examiner

Marc Jimenez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9,10. 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because:

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claim 6 is objected to because of the following informalities: “desire” should be - - desired - - in the last line. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claim 3** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recites “such that a new rest position of the optical axis is opposed the desired position with respect to a previous rest position” in lines 2-3. It is unclear what this limitation

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encompasses. The limitation “opposed” does not clearly describe the location of the “new rest position”.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1, 3-10, and 14-16** are rejected under 35 U.S.C. 102(e) as being anticipated by Flanders et al. (6,625,372).

Flanders et al. teach a process for aligning an optical component **100,F** by plastic deformation (col. 13, line 25), the process comprising: finding a desired position (col. 13, lines 14-15 and 19-20, the “desired position” is the position where maximum signal is detected) of an optical axis of the optical component **100,F** relative to a rest position (col. 13, lines 21-24, the “rest position” is the position after “snap back”, it is noted that the “rest position” may not end up at the position associated with maximum coupling as described in col. 13, lines 29-33) of the optical axis of the optical component **100,F**, and exerting a deformation force that exceeds a yield force (col. 13, line 48) to plastically deform (col. 13, lines 48-49) the optical component so that the optical axis is moved in a direction of the desired position (col. 13, lines 14-15 and 19-20), wherein the rest position (col. 13, lines 21-24 and 29-33) is found after the desired position

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(col. 13, lines 14-15 and 19-20) to account for any plastic deformation induced during the step of finding the desired position (col. 13, lines 14-15 and 19-20).

Regarding claim 3, Flanders et al. teach avoiding backlash by not deforming the optical component **100,F** such that a new rest position (col. 14, lines 1-5) of the optical axis is opposed the desired position (col. 13, lines 14-15 and 19-20) with respect to a previous rest position (col. 13, lines 53-54).

Regarding claims 4, 7, and 16, Flanders et al. teach monitoring an active alignment signal (col. 13, lines 3-5 and 12-14) while exerting the deformation force.

Regarding claims 5, 6, 9, 10, and 15, Flanders et al. teach comparing the active alignment signal to a level of the active alignment signal when the optical component was at the desired position, and finding a new desired position relative to a new rest position, if a level of the active signal detected while exerting the deformation force is less than the level of the active alignment signal when the optical component was at the desired position by a predetermined tolerance (col. 13, lines 13-14, the maximum signal indicates the best alignment, see also steps 664,666 in fig. 20, if not at best alignment the cycle repeats until max signal is indicated).

Regarding claims 8 and 14, the optical component **100,F** includes an optical fiber **F** having an endface and a deformable mounting structure **100** that supports the optical fiber on an optical bench **10**, and wherein the step of monitoring the active alignment signal comprises: generating and coupling an optical signal (col. 13, line 14) into the optical fiber **F**, detecting a level of backreflection of the optical signal into the optical fiber **F** through the endface as the active alignment signal.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 11-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Flanders et al. in view of Applicant's Admitted Prior Art [AAPA] (page 2, lines 6-12 of applicant's specification).

Flanders et al. teach the invention cited with the exception of spectrally analyzing the optical signal for side mode suppression and using the side mode suppression as the active alignment signal.

[AAPA] teaches that it is known to determine the characteristics of light to determine the side mode suppression ratio of the system which dictates the quality of the system.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Flanders et al. with spectrally analyzing the optical signal for side mode suppression and using the side mode suppression as the active alignment signal, in light of the teachings of [AAPA], in order to determine the quality of the system. It is noted that Flanders et al. teach spectrally analyzing the signal in fig. 22.

Contact Information

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9. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to CustomerService3700@uspto.gov.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is **703-306-5965**. The examiner can normally be reached on **Monday-Friday, between 5:30 am- 2:00 pm**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 703-308-1513. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Other helpful telephone numbers are listed for applicant's benefit.

Allowed Files & Publication	(703) 308-6789 or (888) 786-0101
Assignment Branch	(703) 308-9723
Certificates of Correction	(703) 305-8309
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If the information desired is not provided above, or a number has been changed, please call the general information help line below.

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Marc Jimenez
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MJ

October 6, 2003